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CLAIM AMENDMENTS

Claims 1-12 are currently pending in the application.

Claims 9-11 have been withdrawn from consideration.

Please cancel claims 1-8 and 12 without prejudice or disclaimer as to the subject matter of claims 1-8 and 12.

Please amend claims 1-8 as shown below for non-statutory purposes of correcting informalities, and replacing European-style claim phraseology with American-style claim language. No new matter was added.

Please add claims 13-16 as shown below. No new matter was added.

The following listing of the entire set of claims 1-16 is submitted herewith per 37 CFR §1.121, and replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A detector for ~~the~~ a detection of electromagnetic radiation, ~~which detector includes~~ said detector comprising:

at least one scintillator (6);

at least one CMOS chip (3); and

~~one~~ a ceramic basic element (4),

wherein a respective intermediate layer (2) that is defined in respect of its gap width is arranged each time between the scintillator (6) and the CMOS chip (3) and between the CMOS chip (3) and the ceramic basic element (4), and

wherein said intermediate layer (2) contains at least two adhesives (A, B) of different consistency and spacers (5).

2. (Currently Amended) ~~A~~ The detector as claimed in claim 1, characterized in ~~that wherein~~ the gap width of the intermediate layer (2) is determined by quantities of the adhesive (A) and a plurality of spacers (5).

3. (Currently Amended) ~~A~~ The detector as claimed in the claims 1 and 2, characterized in ~~that the~~ wherein a first adhesive (A) is a fast curing epoxy resin, cyanoacrylate or acrylate adhesive.

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4. (Currently Amended) A The detector as claimed in claim 3, ~~characterized in that wherein~~ at least some quantities of the first adhesive (A1) are applied directly to the rear surfaces of the CMOS chip (3) and the ceramic basic element (4) and that a plurality of spacers (5) is arranged between the surfaces of the CMOS chip (3) and the ceramic basic element (4).

5. (Currently Amended) A The detector as claimed in claim 4, ~~characterized in that the wherein each~~ spacer (5) is a wire that consists notably of the materials Au and AlSi.

6. (Currently Amended) A The detector as claimed in claim 3, ~~characterized in that wherein~~ at least some quantities of the a second adhesive (A2) are applied to the surface of the scintillator (6) that faces the CMOS chip as well as to ~~the a plurality of~~ bumps that are present on the CMOS chip (3).

7. (Currently Amended) A The detector as claimed in claim 1, ~~characterized in that the wherein a first~~ adhesive (B) is a low-viscosity adhesive, notably on an epoxy resin basis.

8. (Currently Amended) A The detector as claimed in claim 1, ~~characterized in that wherein~~ the ceramic basic element (4) is based on aluminum oxide.

9. (Withdrawn) A method of forming an intermediate layer between a CMOS chip (3) and a ceramic basic element (4), where spacers (5) and quantities of an adhesive (A1) are applied to a surface of the ceramic basic element (4) during the first step, where the applied quantities of an adhesive (A1) project from the spacers (5), where subsequently the CMOS chip (3) is placed on said quantities and is bonded and fixed while resting on the spacers (5) and quantities of the adhesive (A1), and where during a second step the gap remaining between the CMOS chip (3) and the ceramic basic element (4) is completely filled with an adhesive (B) which is applied to a side

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of the CMOS chip (3) in the horizontal position and enters the gap under the influence of capillary forces and is subsequently allowed to cure.

10. (Withdrawn) A method of forming an intermediate layer between a scintillator (6) and a CMOS chip (3), where at least quantities of the adhesive (A2) are applied, during the first step, to the bumps that are provided in optically inactive regions of the CMOS chip surface, after which the scintillator (6) is arranged on the bumps and is bonded and fixed while resting on the bumps and on the quantities of an adhesive (A2), and where in a second step the gap remaining between the scintillator (6) and the CMOS chip (3) is completely filled with an adhesive (B) which is applied to one side of the scintillator (6) in the horizontal position and enters the gap under the influence of capillary forces and is subsequently allowed to cure.

11. (Withdrawn) A method of forming a detector for the detection of electromagnetic radiation as claimed in claim 1, where first an intermediate layer (2) is formed between a CMOS chip (3) and a ceramic basic element (4) in conformity with claim 9 and subsequently an intermediate layer (2) is formed between a scintillator (6) and a CMOS chip (3) in conformity with claim 10.

12. An X-ray examination apparatus that includes at least one detector as claimed in one of the claims 1 to 8.

13. (New) A detector for detecting electromagnetic radiation, said detector comprising:

- a ceramic basic element (4);
- a CMOS chip (3); and
- a first intermediate layer (2) between said ceramic basis element (4) and said CMOS chip (3), said first intermediate layer (2) including
 - a first spacer (5) in contact with said ceramic basic element (4) and said CMOS chip (3),

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a first adhesive (A1) adhered to said ceramic basic element (4) and said CMOS chip (3), and

a second adhesive (B) adhered to said ceramic basic element (4) and said CMOS chip (3).

14. (New) The detector of claim 13,

wherein said second adhesive (B) is between and adhered to said first spacer (5) and said first adhesive (A1).

15. (New) The detector for detecting electromagnetic radiation of claim 13, further comprising:

a scintillator (6); and

a second intermediate layer between said CMOS chip (3) and said scintillator (6), said second intermediate layer including

a second spacer (5) in contact with said CMOS chip (3),

a third adhesive (A2) adhered to said second spacer (5) and said scintillator (6), and

a fourth adhesive (B) adhered to said CMOS chip (3), said scintillator (6), said second spacer (5) and said third adhesive (A2).

16. (New) The detector of claim 15,

wherein said second intermediate layer further includes a third spacer (5) in contact with said CMOS chip (3); and

wherein said fourth adhesive (B) is between and adhered to said scintillator (6) and said third spacer (5).